ET1000SM40LC

Gigabit Single Mode Fiber Media Converter LC - 40 km

Installation Guide

Packaging Contents

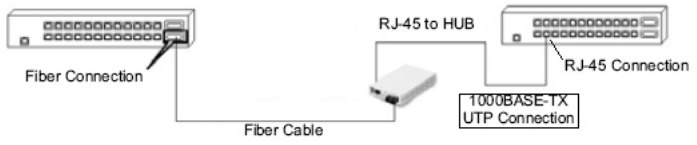
- 1 x ET1000SM40LC media converter
- 1 x Power Adapter
- 1 x Installation Guide

System Requirements

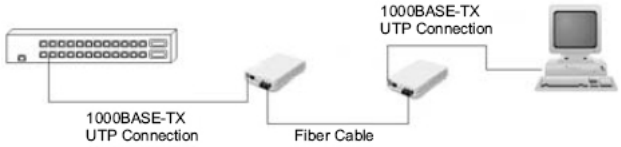
- 1000Base network infrastructure
- Single Mode fiber cable

Installation

1. Connect the fiber network cable to the LC connector on the fiber media converter. Using UTP Ethernet cable, connect the cable to the RJ45 jack.
2. Set the Auto/Force switch on the media converter, to turn auto negotiate on or off. If set to Force, set the Duplex switch (full/half) according to the specifications of your networking equipment.
3. The following example illustrates the connection scheme when connecting from a 1000Base-TX port of a hub/switch to a 1000Base-SX/LX port of another hub/switch, through the fiber media converter:



4. The following example illustrates the connection scheme when connecting from a 1000Base-TX port on a hub/switch to a 1000BASE-TX Network Interface Card (NIC) in a computer through the fiber media converter:



DIP Switch Configuration

Full/ Half:
The Fiber and UTP Duplex will be configured in Full duplex or Half duplex.

* This switch includes an “Auto Reset” function so the power-reset is not necessary when any modification is made here.

LBT:
Loop-back test and get remote side status :
(OFF = Not Active, ON = Active).

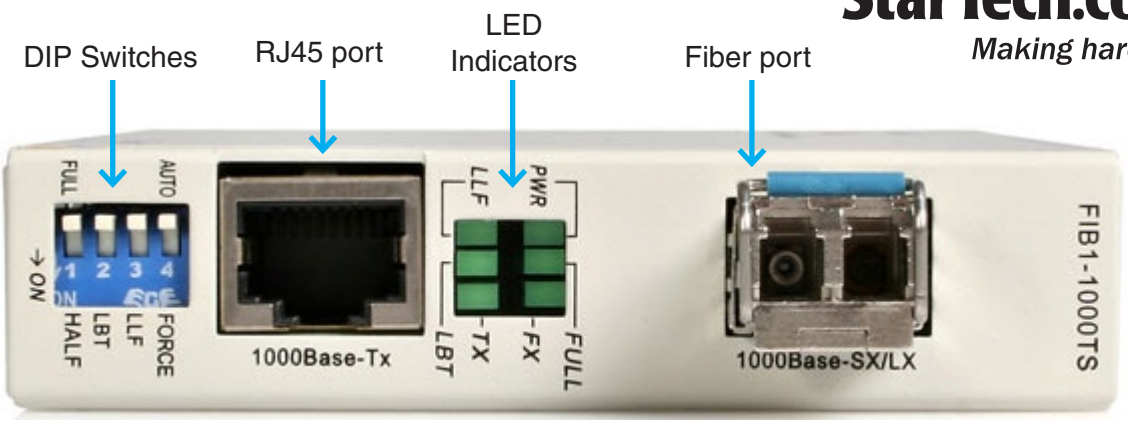
* If the local side loop-back test is active, then LEDs (except PWR) will all blink rapidly and refresh to display the remote side status.

LLF:
Link Loss Forwarding (OFF = Not active, On = Active)

Auto/Force:
Auto negotiate duplex mode, or force Full/Half via DIP switches.

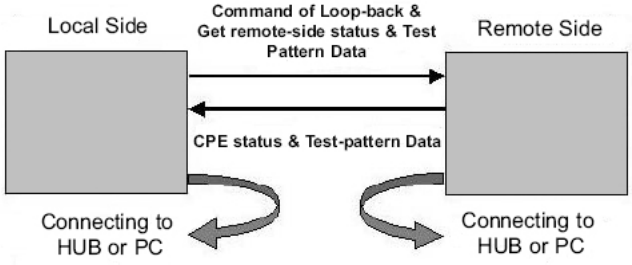
LED Configuration

LED	Name	Status	Description
PWR	Power	ON	Unit is powered
		OFF	Unit is not powered
		Blink	LBT mode enabled
Full	Duplex Mode	ON	Fiber side Full Duplex Mode
		OFF	Half Duplex Mode
FX	Fiber Link	ON	Fiber link is detected
		OFF	Fiber link is not detected
		Blink	Fiber activity
LBT	Loop-back Test/Get CPE status	Blink	Mode enabled
		OFF	Mode disabled
LLF	Link Loss Forwarding	ON	Mode enabled
		OFF	Mode disabled
TX	Ethernet Link	ON	UTP link is detected
		OFF	UTP link is not detected
		Blink	UTP activity



Loop-back Testing (LBT) & Get CPE status

This fiber media converter incorporates a Fiber Loop-back Testing feature which allows the system to confirm whether or not the fiber or Ethernet circuit loop is complete. The local-side unit will send out a detect message which includes both command and test-pattern data to the remote-side unit and request for an answer. When the remote-side unit receives the message, it will attempt to recognize the command.
After the remote-side unit recognizes the command message, it will deliver the received test-pattern data back to the local-side unit, completing the circuit loop, and enabling the rack mount unit to easily monitor the remote side unit(s). The remote side status message includes the fiber-side link and duplex status, the UTP-side link, duplex, speed, power, transmission and fiber failure status.
Please note that while Loop-back testing is in process, the fiber side transmission will be halted. If the local-side cannot access the remote-side while in Loop-back Testing mode, only the power LED will flash (rapidly):


Local Side
Command of Loop-back & Get remote-side status & Test Pattern Data
Remote Side
CPE status & Test-pattern Data
Connecting to HUB or PC
Connecting to HUB or PC

Link-Loss-Forwarding (LLF)

This fiber media converter incorporates a Fiber Link Forwarding feature that allows indirect sensing of a Fiber Link Loss via the 1000 Base-TX UTP connection. Whenever the media device detects a Link Loss on the Receive fiber (Fiber Link OFF), it disables its UTP transmitter so that a Link Loss condition will be sensed on the receive UTP port (as depicted in the following diagram). The Link Loss can then be easily monitored and reported at the remote UTP port's host equipment.
This feature has no effect on the media converter's UTP Link LED, which continues to function normally, independent of the state of the Fiber Link LED and the UTP transmitter. This feature is enabled by default.

Specifications

Connectors	1 x RJ45 Ethernet 1 x LC Fiber 1x DC power connector
Fiber Type	Single Mode
Maximum Distance	40 km
Duplex Modes	Full/Half duplex Ethernet modes
Protocol Standards	IEEE802.3 1000Base-TX, IEEE802.3z 1000Base-SX/LX
Power Adapter	12VDC, 1A, center positive
Operating Temperature	0 - 50° C
Humidity	10-90% (non-condensing)
Dimensions	122.0 mm x 85.0 mm x 20.0 mm
Weight	340 g

Warranty Information

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